

## **REMARKS**

### **I. Status of Claims**

After the above amendments, claims 1, 2, 4-6, 8-10, 12, 13 and 16-18 are pending. Claims 1, 8 and 12 are independent. In the above amendments, claims 1 and 12 have been amended to include the subject matter of claims 7 and 15 respectively. Further, claims 7 and 15 have been canceled.

### **II. Request for Interview**

If the rejections are to be maintained, Applicant respectfully requests an interview with the Examiner.

### **III. Rejections under 35 U.S.C. §102(e) as being anticipated by REZAIIFAR et al. (US 2004/0120283 A1)**

The Examiner has rejected claims 1-18 under 35 U.S.C. §102(e) as being anticipated by REZAIIFAR et al. (US 2004/0120283 A1) (hereafter REZAIIFAR). Applicants respectfully request reconsideration of the rejection because REZAIIFAR does not disclose each and every element of claims 1, 8 and 12.

In particular, starting with independent claim 1, the claim as amended requires:

the mobile communication system transmitting location information to a heterogeneous mobile communication system;

and

the heterogeneous mobile communication system requesting the mobile communication system to page the mobile terminal according to the received information,

wherein

the mobile communication system comprises a circuit-switched network and the heterogeneous mobile communication system comprises a packet-switched network.

Generally, REZAIIFAR's teaching deals with the scenario where a mobile terminal registered in a circuit-type communications network in a first area initiates a packet-type

communication in the first area via a packet-type communications network and then crosses into a second area while remaining in the packet-type communication. In this scenario the packet-type communication is routed via a Base Station in the first area regardless of the mobile terminal being in the first or second area. Thus, the location of the mobile station doesn't get updated for the circuit-type communications network when the mobile station crosses into the second area. Thus, REZAIIFAR's teaching focuses on overcoming problem in the above scenario by updating the location of mobile station for the circuit-type communications network while the mobile station is in an ongoing packet-type communication when it passes from the first to the second area. Specifically, REZAIIFAR teaches that location updates for the circuit-type communications network are made via the packet-type communication of the packet-type communications network. As part of the location update, the packet-type communication system provides location information to the circuit-type communication network. Once the location information is updated for the circuit-type communication network, the circuit-type communication network pages the mobile terminal via a packet-type communication of the packet-type communications network. Thereafter, the mobile terminal communicates via a circuit-type communication of the circuit-type communications network.

By contrast, the claim requires that the mobile communication system (comprising a circuit-switched network) transmits location information to a heterogeneous mobile communication system (comprising a packet-switched network). Further, the claim requires that the heterogeneous mobile communication system (comprising a packet-switched network) request that the mobile communication system (comprising a circuit-switched network) page the mobile terminal according to the received information. ***Thus, at the least, REZAIIFAR is operating in an opposite manner to what is required by claim 1.*** In other words, *instead of* the mobile communication system (comprising a circuit-switched network) transmitting location information to a heterogeneous mobile communication system (comprising a packet-switched network), *REZAIIFAR teaches* of a packet-switched network sending transmitting location information to a circuit-switched network. Further, *instead of* the heterogeneous mobile communication system (comprising a packet-switched network) requesting that the mobile communication system (comprising a circuit-switched network) page the mobile terminal

according to the received information, *REZAIIFAR teaches* that the circuit-switched network pages the mobile terminal itself.

Further, independent claim 1 as amended requires:

the location registration message that is transmitted from the mobile terminal to the mobile communication system include information to determine whether or not a heterogeneous mobile communication system registers location information of the mobile terminal;

Claim 1 was amended to incorporate the above subject matter from claim 7. In the rejection of claim 7, paragraphs 66 and 67 of REZAIIFAR were cited. Paragraphs 66 and 67 disclose that if an MSC is moved in mobile communication system, the BSC connected with the current MS registers the foot-print or geographic area with another MSC. However, paragraphs 66 and 67 do not disclose a location registration message that is transmitted from the mobile terminal to the mobile communication system include information to determine whether or not a heterogeneous mobile communication system registers location information of the mobile terminal.

Thus, REZAIIFAR does not disclose, among other things, “the mobile communication system transmitting location information to a heterogeneous mobile communication system”, “the heterogeneous mobile communication system requesting the mobile communication system to page the mobile terminal according to the received information” or “the location registration message that is transmitted from the mobile terminal to the mobile communication system include information to determine whether or not a heterogeneous mobile communication system registers location information of the mobile terminal”. Consequently, the rejection of claim 1 is improper, and Applicant respectfully requests withdrawal of the rejections. Should the Examiner maintain the rejection the Examiner is respectfully requested to articulate how REZAIIFAR teaches of “the mobile communication system transmitting location information to a heterogeneous mobile communication system” and “the heterogeneous mobile communication system requesting the mobile communication system to page the mobile terminal according to the received information” in the context of the mobile communication system comprising a circuit-switched network and the heterogeneous mobile communications system comprising a

packet-switched network. Further, should the Examiner maintain the rejection the Examiner is respectfully requested to articulate how REZAIIFAR teaches of "the location registration message that is transmitted from the mobile terminal to the mobile communication system include information to determine whether or not a heterogeneous mobile communication system registers location information of the mobile terminal". Claim 12 comprises similar subject matter to claim 1 and is therefore allowable for similar reasons. Moreover, claims 2-6 and 13, 14 and 16-18 are dependent claims and are therefore allowable for at least for the above reasons by virtue of their dependence on claims 1 or 12.

Independent claim 8, the claim requires:

the step of determining whether the mobile terminal has been location-registered in the mobile communication system or in the heterogeneous mobile communication system with reference to pre-registered location information of the mobile terminal when paging request of the mobile terminal occurs in the heterogeneous mobile communication system.

In the Examiner's rejection of claim 8 under 35 U.S.C. § 102(e), the Examiner states that the above limitation is disclosed by paragraphs [0069], [0044] and [0074] of REZAIIFAR. In paragraph [0069] of REZAIIFAR, when the MS 268 is moves into a new MSC region 272, the anchor BSC 264 sends a TunneledRegistrationRequest message to the MS 268 to force the MS 268 to register with the new MSC. In paragraph [0044] of REZAIIFAR, when a subscriber station 104 is moves into 108b region, the subscriber station 104 sends a request of a unique address identifier necessary in the 108b region through an air interface for a voice service. In paragraph [0074] of REZAIIFAR, if the anchor BSC cannot reach a neighboring MSC directly, then the anchor BSC can forward the "A1: Location Updating Request" through a Reflector to the neighboring MSC. Thus, nowhere in REZAIIFAR is there any disclosure of *determining whether the mobile terminal has been location-registered in the mobile communication system or in the heterogeneous mobile communication system with reference to pre-registered location information of the mobile terminal when paging request of the mobile terminal occurs in the heterogeneous mobile communication system.* In view of the above arguments, Applicant respectfully requests that the rejection of Claim 8 be withdrawn. Moreover, claims 9-11 are dependent claims and are therefore allowable for at least for the above reasons by virtue of their

Appl. No. 10/764,552  
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dependence on claim 8. Should the Examiner maintain the rejection of claim 8 the Examiner is respectfully requested to articulate how REZAIIFAR teaches each and every element of the above identified limitation from claim 8.

**IV. Conclusion**

In view of the above, it is believed that the above-identified application is in condition for allowance, and notice to that effect is respectfully requested. Should the Examiner have any questions, the Examiner is encouraged to contact the undersigned at the telephone number indicated below.

Respectfully submitted,

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